

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated May 29, 2008. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1-10 stand for consideration in this application, wherein claims 1, 2, 4, 5, 9, and 10 are being amended.

Additional Amendments

The Title of the Invention is being amended. All amendments to the application are fully supported therein, including page 9, line 22 – page 10, line 1 and page 11, lines 12-17 of the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Title

The Examiner asserted that the Title of the Invention is not descriptive.

Applicants believe that the Title of the Invention meets the requirement of 35 U.S.C. §112 as a whole. 35 U.S.C. §112 does not require the Title be descriptive. However, in order to advance the prosecution of this case, the Title of the Invention is being amended as set forth above. Applicants do not intend to limit the scope of the present invention by this amending of the Title of the Invention.

Prior Art Rejections

The First 35 U.S.C. §103(a) Rejection

Each of claims 1, 2, and 4-10 was rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Hartzstein (U.S. Pub. No. 2005/0285773) in view of Boulingre (U.S. Pat. No. 5,724,052). Applicants respectfully traverse this rejection for the reasons set forth below.

Claim 1

An automotive radar as recited in claim 1 comprises: an antenna equipped with at least one radiating element which radiates linear polarized radio waves; a slit plate which is a

metal plate in which a plurality of slits are defined, the slit plate being placed in front of the surface of the antenna; radio wave absorbers provided between the antenna and the slit plate; and a transceiver device which supplies transmit signals to the antenna to radiate radio waves and, from signals acquired by receiving reflection waves which are returned waves of the radio waves striking an obstruction, detects a direction in which the obstruction exists. At least one of the radio wave absorbers is backed with a second metal plate for impedance matching in space so as to reduce sidelobes generated by radio wave leakage from a clearance between the antenna and the slit plate and prevent a multipath of incident waves to a surface of a road and reflection waves from the surface of the road.

In contrast, although the Examiner appeared to assert that an antenna and a slit plate recited in claim 1 may read on an antenna 34 and horizontal conducting lines 102 shown in Hartzstein, respectively, Hartzstein does not show radio wave absorbers provided between the antenna and the slit plate as admitted by the Examiner. Clearly, Hartzstein cannot and does not show or suggest that at least one of the radio wave absorbers is backed with a second metal plate for impedance matching so as to reduce sidelobes produced by radio wave leakage from a clearance between the antenna and the slit plate and prevent a multipath of incident waves to a road surface and reflection waves from the road surface.

The secondary reference of Boulingre shows that an absorbing layer 30 is placed between an antenna 10 and a radome 20. (See Fig. 2.) However, Boulingre does not show or suggest that the absorbing layer 30 is backed with a second metal plate for impedance matching so as to reduce sidelobes produced by radio wave leakage from a clearance between the antenna and the slit plate and prevent a multipath of incident waves to a road surface and reflection waves from the road surface. Indeed, Boulingre merely shows that absorbing layer 30 is placed in order to eliminate the ray reflected on the surface of the radome 20. (See col. 3, lines 41-43.) Boulingre says nothing about reducing sidelobes produced by radio wave leakage from a clearance between the antenna and the slit plate and prevent a multipath of incident waves to a road surface and reflection waves from the road surface.

Therefore, an ordinary skill in the art could not achieve all the features recited in claim 1 by modifying Hartzstein's showing with Boulingre's absorbing layer. Accordingly, claim 1 is not obvious in view of all the prior art cited.

Claim 9

Claim 9 has substantially the same features as those of claim 1. As such, the arguments set forth above are equally applicable here. Claim 1 being allowable, claim 9 must also be allowable.

Claims 2, 4-8, 10

As to dependent claims 2, 4-8, and 10, the arguments set forth above with respect to independent claims 1 and 9 are equally applicable here. The corresponding base claim being allowable, claims 2, 4-8, and 10 must also be allowable.

The Second 35 U.S.C. §103(a) Rejection

Claim 3 was rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Hartzstein in view of Boulingre, and further in view of Kakizaki (JP 2001-127523).

As set forth above, the combination of Hartzstein and Boulingre fails to teach all the elements recited in claim 1, from which claim 3 depends. The secondary reference of Kakizaki fails to provide any disclosure, teaching or suggestion that makes up for the deficiencies in the combination of Hartzstein and Boulingre. Therefore, at the time the invention was made, one of ordinary skill in the art would not and could not achieve all the features as recited in claim 1, from which claim 3 depends.

Accordingly, claim 3 is not obvious in view of all the prior art cited.

The Third 35 U.S.C. §103(a) Rejection

Each of claims 9-10 was rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Hartzstein in view of Brown (U.S. Pat. No. 5,880,695).

Claim 9 has substantially the same features as those of claim 1. As such, the arguments with respect to Hartzstein set forth above are equally applicable here.

The secondary reference of Brown fails to provide any disclosure, teaching or suggestion that makes up for the deficiencies in Hartzstein. Therefore, at the time the invention was made, one of ordinary skill in the art would not and could not achieve all the features as recited in claim 9 and its dependent claim 10.

Accordingly, claims 9-10 are not obvious in view of all the prior art cited.

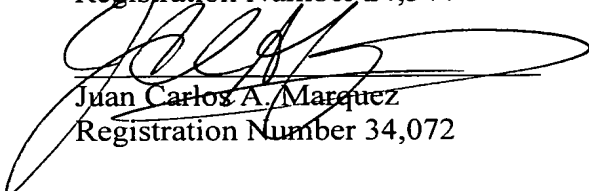
Conclusion

In light of the Amendments and Remarks, Applicants respectfully request early and favorable action with regard to the present application, and a Notice of Allowance for all pending claims is earnestly solicited.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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